REMARKS

Claims 1-20 remain pending. Claims 1 and 11 have been amended. Applicants reserve the right to pursue the original claims in this and other applications. Applicants appreciate the Examiner's acknowledgement that claims 3-4, 6-8, 10, 13-14, 16-18, and 20 contain allowable subject matter. Reconsideration and withdrawal of all outstanding objections and rejections are respectfully requested in light of the foregoing amendments and the following remarks.

The Specification stands objected to for several informalities. Four paragraphs in the Specification have been amended to obviate the Examiner's objections labeled (a), (c), and (d). With respect to the objection labeled, (b), the Examiner's attention is directed to the paragraph beginning at page 11, line 4. The elements "C(a)" and "C(b)" in equations (2) and (3) are defined as representing "the numbers of black pixels in the respective area 'a' and 'b.'" Page 11, lines 8-9. Withdrawal of each of these objections is requested.

The Specification stands objected to as failing to provide proper antecedent basis for the claim term "area balance" in claims 5 and 15. The claim phrase "area balance" means a uniformity of black pixels. Specifically, in order to check the uniformity of black pixels, a figure (foreground) part is divided into divisions, and it is determined whether or not black pixels exist in the respective areas. For an embodiment, see the description accompanying Table 2, at page 15. The claimed invention should not be limited, however, to the embodiments described in the specification. Based on the foregoing, withdrawal of the objection is requested.

Claims 1 and 11 stand objected to under 37 CFR 1.75(a). In response, claims 1 and 11 have been amended to eliminate the grammatically incorrect phrase "how much it resembles to the element." In claim 1, Applicants submit that in light of the entire application, the phrases "positional relationship therebetween" and "using. . . synthetically" are clear. Specifically, the phrase "positional relationship therebetween" refers to a positional relationship between image parts. Distances between image parts are

8

calculated, and it is determined whether or not a pre-determined positional relationship is met. See page 5, lines 12-15. The phrase "using. . . synthetically" means the calculation is made applying a first score and a second score in a predetermined equation. That is, "synthetically" means that various factors are applied and calculation is made therewith in a combined matter, such as be, for example, addition or multiplication. Withdrawal of the outstanding objections is requested.

Claims 5 and 15 stand rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement. Specifically, the Office Action states that the specification does not explain how an "area balance" is examined on each image part. Based upon the discussion above with respect to this claim term, Applicants submit that the claim term is sufficiently enabled by the disclosure in the application. Withdrawal of this rejection is requested.

Claims 1, 2, 9, 11, 12, and 19 stand rejected under 35 USC 102(b) as being anticipated by U.S. Patent No. 5,008,946 to Ando ("Ando"). The rejection is traversed.

Between the present invention and Ando, although each generally relates to image recognition, both the input images for consideration as well as the means to solve the problem are different. According to Ando, a plurality of features (such as pupils, nose, mouth, etc.) having different shapes are detected for recognizing a human face. See col. 40, lines 53-55. Because shapes, colors, and size of the features differ among particular persons, normalized data is required. Col. 5, lines 24-34. Accordingly, it is not possible to detect these facial features using a mask having a predetermined size.

In contrast thereto, according to the present invention, a "plurality of elements each having the same shape," are considered. For example, see the circle of eight pixels, disclosed on page 10. That is, the shapes of the elements are previously fixed. (Other characteristics such as size and color of the elements can be fixed as well). Scoring in the present invention, is carried out for determining a resembling degree of the input image

parts with respect to a reference. Accordingly, the image parts in the present invention can be detected with the use of a mask having a predetermined size.
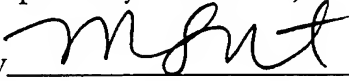
As to the positional relationship, Ando examines the relationship depending on each particular type of image part under consideration. That is, the eyes and mouth of a face have a positional relationship appearing like a isosceles triangle, and thus, it is examined as to whether or not a nose exists therein. Reference values for a face are pre-assigned for the various facial features. A purpose of the examination is to verify how closely the normalized distances of examined elements correspond to the reference values. Col. 5, lines 38-41. Further, it is assumed that a face is included in an input image, and a final purpose is to extract respective elements therefrom.

In contrast thereto, according to the present invention, reference figures are comprised of same-shaped elements, and examination is carried out as to whether or not respective actual positions of input image parts meet a predetermined positional relationship of a figure. That is, a final purpose is to determine whether or not the input image parts have the same positional relationship as a predetermined figure. Any figures may be included in an input image.

For at least these reasons, Applicants believe that each of the pending claims in this application is in condition for immediate allowance. Favorable action on claims 1-20 is solicited.

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Respectfully submitted,

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11